

This listing of claims will replace all prior versions, and listings, of claims in the application. All amendments are made without prejudice or disclaimer.

Listing of Claims

1. (Original) A cross-reactive antibody, which specifically inhibits or blocks the mammalian Toll-like receptor 2 (TLR2)-mediated immune cell activation by specifically binding to the C-terminal portion of the extracellular domains of at least human and murine TLR2.
2. (Currently Amended) The antibody of claim 1, ~~which is~~ wherein the antibody is selected from a polyclonal antibody, a monoclonal antibody, a humanized antibody, a chimeric antibody, or a synthetic antibody.
3. (Currently Amended) The antibody of claim 1 ~~or 2~~, wherein the antibody specifically binds through its variable regions of the heavy- and light chain ~~carrying~~ comprising the amino acid sequence as depicted in SEQ ID NO:1 and/or 2, or a variant thereof.
4. (Currently Amended) The antibody of ~~one or more of~~ claims 1 ~~to 3~~, wherein said antibody is linked to a pharmaceutical agent, and/or to a detectable agent.
5. (Currently Amended) An isolated nucleic acid coding for the variable regions of the heavy and/or light chain of the antibody of claim 1 ~~one or more of claims 1-4~~.

6. (Currently Amended) An isolated nucleic acid which comprises the sequence of SEQ ID NO: 1 and/or 2 or variants thereof, wherein the variants are ~~each defined as having one or more substitutions, insertions and/or deletions as compared to the sequence of SEQ ID NO: 1 and/or 2,~~ provided that said variants hybridize under moderately stringent conditions to a nucleic acid which comprises the sequence of SEQ ID NO: 1 and/or 2, and further provided that said variants code for an amino acid having activity as a variable region of an antibody specifically binding to the C terminal portion of the extracellular domains of at least human and murine TLR2 or provided that said variants comprise nucleic acid changes due to the degeneracy of the genetic code, which code for the same or a functionally equivalent amino acid as the nucleic acid sequence of SEQ ID NO: 1 and/or 2, selected from:

a nucleic acid having a sequence that hybridizes under moderately stringent conditions to a nucleic acid which comprises the nucleic acid sequence of SEQ ID NO: 1 and/or 2 or its complement and encodes a protein region that specifically binds to the C-terminal portion of the extracellular domains of at least human and murine TLR2; and

a nucleic acid having a sequence that encodes for the amino acid sequences of SEQ ID NO: 1 and/or 2 or a variant thereof that specifically binds to the C-terminal portion of the extracellular domains of at least human and murine TLR2.

7. (Original) The isolated nucleic acid of claim 6, which comprises at least the sequence of nucleic acids No. 172 – 201, 244 – 294 and/or 385 – 417 of SEQ ID NO: 1, or of nucleic acids No. 130 – 174, 220 – 240 and/or 337 – 363 of SEQ ID NO:2, or a part thereof.

8. (Currently Amended) The isolated nucleic acid of ~~one or more of~~ claims 5-7, said isolated nucleic acid further comprising a nucleic acid specifying one or more regulatory sequences operably linked thereto.

9. (Currently Amended) A vector, which comprises the nucleic acid sequence of ~~one or more of~~ claims 5-8.

10. (Currently Amended) The vector of claim 9, which is an expression vector, which and comprises the nucleic acid sequence of any of claim 5-8 and further comprising one or more regulatory sequences operably linked to said nucleic acid.
11. (Currently Amended) The vector of claim 9-~~or 10~~, which is a plasmid or a retroviral vector.
12. (Currently Amended) A host, which has been transformed with the vector of ~~any of~~ claims 9-~~11~~.
13. (Original) The host of claim 12, which is a eukaryotic cell.
14. (Original) The host of claim 13, which is a mammalian cell, plant cell, yeast cell or an insect cell.
15. (Original) The mammalian cell of claim 14, which is a CHO, COS, HeLa, 293T, HEH or BHK cell.
16. (Original) The host of claim 12, which is a prokaryotic cell.
17. (Original) The host of claim 16, which is *E.coli* or *Bacillus subtilis*.
18. (Currently Amended) A pharmaceutical composition comprising an antibody of ~~one or more of~~ claims 1-4, a nucleic acid encoding the variable regions of the heavy and/or light chains of said antibody of one or more of claims 5-8 or a vector comprising said nucleic acid of one or more of claims 9-11, and a pharmaceutically acceptable carrier.

19. (Original) The pharmaceutical composition of claim 18, which further contains one or more pharmaceutically active ingredients.

20. (Currently Amended) The pharmaceutical composition of claim ~~18~~ 19, wherein the one or more pharmaceutically active ingredients are selected from antibiotic agents, antiinflammatory agents, and / or agents blocking further pattern recognition receptors.

21. (Original) The pharmaceutical composition of claim 20, wherein the agent is specific for TLR3, TLR4, TLR5, TLR7, TLR8, and/or TLR9.

22. (Currently Amended) A hybridoma which produces a monoclonal antibody ~~of~~ according to claim 1 2.

23. (Currently Amended) A method of preventing and/or treating a TLR2-mediated process in a mammal, comprising administering Use of an the antibody of one or more of claims 1-4, of a nucleic acid encoding the variable regions of the heavy and/or light chains of said antibody of one or more of claims 5-8 or a vector comprising said nucleic acid of one or more of claims 9-11 or of the a composition comprising any thereof and a pharmaceutically acceptable carrier of claims 18-21 to said mammal in an effective amount to prevent and/or treat said TLR2-mediated process, in the prevention and/or treatment of inflammatory processes or any other process induced by bacterial infection, trauma, or chronic inflammation.

24. (Currently Amended) The ~~use~~ method of claim 23, wherein the individual dose administered to ~~a the mammal, preferably a human,~~ is between 1 ~~mg to~~ and 100 mg/kg body weight.

25. (Currently Amended) The ~~use~~ method of claim 24, wherein the individual dose is administered as a single dose to the mammal ~~suffering from an acute infection.~~

26. (Currently Amended) The ~~use~~method of claim 25, wherein the individual dose is administered repeatedly to the mammal ~~suffering from a chronic infection and/or inflammation~~.
27. (Currently Amended) The ~~use~~method of claim 24—26, wherein the dose ~~of the antibody~~ is between 10 ~~to~~and 60 mg/kg body weight.
28. (Currently Amended) The ~~use~~method of claim 27, wherein the dose is between 20 ~~to~~and 40 mg/kg body weight.
29. (Canceled)
30. (Currently Amended) The ~~use~~method of ~~claim 23~~claim 26, wherein the ~~chronic infection~~ TLR2-mediated process is selected from rheumatoid arthritis, ~~or~~ vascular arthritis, and inflammatory bowel disease.
31. (Original) A screening method for identifying an antagonist capable of inhibiting or blocking TLR2, comprising the steps of:
- (a) generating or providing mammalian TLR2,
 - (b) contacting said TLR2 with a candidate compound,
 - (c) detecting the inhibition or blocking of said compound by a suitable detection method,
 - (d) selecting a compound that has been tested positive in step (c),
 - (e) optionally repeating steps (a) – (d) with a suitably modified form of the compound of step (d).